REMARKS

Reconsideration and allowance of the subject application are respectfully requested. By this Amendment, Applicant has added new claims 18-20. Thus, claims 1-20 are now pending in the application. In response to the Office Action, Applicant respectfully submits that the pending claims define patentable subject matter.

As a preliminary matter, Applicant thanks the Examiner for indicating that dependent claims 6 and 7 would be allowable if rewritten to overcome the § 112, first paragraph, rejection and include all of the limitations of the base claims.

I.   Written Description Rejection

Claims 1-17 are rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. In particular, the Examiner notes that claims 1, 6, 8, 9 and 14 recite "at least portions of said color data D, D'" and "remainders of said color data D, D'" and generally asserts that the specification does not describe a portion of the color data D'. However, Applicant respectfully submits that the written description rejection is improper since specification (e.g., pages 12-19) describes that the conversion tables for the color data of the colors specified by the constraint conditions (i.e., at least portions of the color data D and D') are generated based on the constraint conditions, the printer profile and the printing profile, while the conversion tables not specified by the constraint conditions (i.e., remainders of the color data D and D') are generated based on the printer profile and the printing profile. In other words, a portion of the color conversion data corresponding to the colors specified by the constraint

conditions is generated/modified according to the constraint conditions. Nonetheless, Applicant has amended the claims to improve clarity by removing the claim language which the Examiner asserts is not described in the specification.

With regard to claim 7, the Examiner contends that the specification does not "mention halftone dot area percentages." However, the specification (pages 15 and 16) discloses the constraint condition may specify equalizing halftone dot area percentages for a particular range and the color conversion table generator generates/modifies the color conversion table based on the constraint condition via interpolation. Although the section of the specification (page 2, lines 1-8) cited by the Examiner does not explicitly state that the halftone dot area percentages are interpolated, Applicant submits that one of ordinary skill in the art would readily understand that the disclosed "interpolation" is that of the (halftone dot) area percentages described in the previous paragraph on page 14. Further, as set forth in MPEP 2163, the subject matter of the claim need not be described literally in order for the disclosure to satisfy the written description requirement.

Accordingly, the Examiner is requested to withdraw the § 112, first paragraph, rejection of record.

II.   Prior Art Rejections

Claims 1-4 and 9-17 are rejected under 35 U.S.C. § 102(e) as being anticipated by Shimazaki (USP 6,396,595). Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimazaki in view of Sawano et al. (USP 6,411,318; hereafter "Sawano"). Claim 8 is

rejected under 35 U.S.C. § 103(a) as being unpatentable over Shimazaki in view of Laumeyer et

al. (USP 5,572,632; hereafter "Laumeyer"). Applicant respectfully traverses the prior art

rejections.

Amended independent claim 1 recites:

determining a first colorimetric value of a first color obtained by
processing the first color data D with the first device;

determining a second colorimetric value of a second color obtained by
processing the second color data D' with the second device;

establishing a color conversion table such that said first colorimetric value
is equalized to said second colorimetric value;

establishing a constraint condition to constrain color conversion
relationships of said color conversion table between portions of said first and
second color data D and D' after establishing the color conversion table; and

modifying the color conversion table between portions of said first and
second color data D and D' according to said constraint-condition for generating a
new color conversion table.

Amended independent claims 9 and 14 recite similar limitations.

With regard to independent claims 1, 9 and 14, the Examiner (citing Fig. 3 and column 3,

lines 44-46, column 4, lines 64-67 and column 5, lines 1-3) maintains that Shimazaki discloses

all of the features of the claims. However, Applicant respectfully submits that Shimazaki does

not teach or suggest (1) establishing a constraint condition to constrain color conversion

relationships of the color conversion table between portions of the first and second color data D

and D' after establishing the color conversion table; and (2) modifying the color conversion table

between portions of the first and second color data D and D' according to the constraint condition for generating a new color conversion table, as required by the claims.

The present invention teaches that a basic color conversion table is generated by combining a printing profile established based on the printing conditions for the printed material to be generated by the printing machine (1st device), a printer profile established based on output condition for the proof to be generated by the printer (2nd device) and a K gradation conversion table which serves to converts the gradation of printing image data K based on the output characteristics of the printer (the colormetric value of the printed material composed of only the printing image data K is equalized to the colormetric value of the proof composed of only the proof image data K'). The printing profile is established by determining a first colorimetric value of a first color obtained by processing the first color data D with the printing machine (1st device). The printer profile is established by determining a second colorimetric value of a second color obtained by processing the second color data D' with the printer (2nd device). The color conversion table is then modified based on a constraint condition to generate a new color conversion table. See page 9, line 9 - page 12, line 4.

As shown in Fig. 3, Shimazaki discloses a color printer 18 has a printing condition correcting conversion table 36 (i.e., printing profile), a standard color conversion table 38 (K gradation converting table), and a calibration conversion table 40 (i.e., printer profile). Color conversion data of these conversion tables 36, 38, 40 are combined by a combining processor 42 into combined color conversion data (i.e., a color conversion table), which is then placed in a combined conversion table 44 for converting color image data of C, M, Y, K into color image

data C', M', Y', K'. The printing condition correcting conversion table 36 is a conversion table for converting color image data in view of printing conditions (e.g., the type of the print paper used, and the type of inks used) of a color printing machine 17 (see Fig. 1). The standard color conversion table 38 is a conversion table for making standard color corrections depending on the output principles (e.g., halftone dot modulation or density modulation) of the color printer 18 and the color printing machine 17, independently of the printing conditions. The calibration conversion table 40 is a conversion table for compensating for color printer type differences, different environments in which the color printer 18.

The Examiner cites Shimazaki for disclosing "a test chart generator that creates three dimensional conversion characteristics CMY and one dimensional conversion characteristics K for converting the color image data into their colorimetric values (column 4, lines 64-67 and column 5, lines 1-3) and asserts that this corresponds to "generating a color conversion table between at least portions of color data D, D' according to constraint conditions and a color conversion table between remainders of color data D, D' in colorimetric association therewith."[1] However, the cited section of Shimazaki is directed to the generation of the standard color conversion table 38 which is combined with the printing condition correcting conversion table 36 and the calibration conversion table 40 to generate the combined conversion table 44 which corresponds to the claimed color conversion table which is established such that the first colorimetric value is equalized to the second colorimetric value. Nowhere does Shimazaki teach

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[1] Office Action at page 4.

or suggest that the combined color conversion table is modified between portions of the and

second color data D and D' according to a constraint condition to generate a new color

conversion table.

Shimazaki discloses that a constraint condition, such as $K = f(C, M, Y)$, utilized to

generate the standard color conversion table, is set for input data for decreasing the dimension of

input data space thereby reducing a memory size for the color conversion table. In contrast, the

present invention aims to set a constraint condition to a color conversion table for converting

input data (color data D) into output data (color data D'). The constraint condition is established

between the input data and the output data. Reducing a memory size for the data space is not an

object of the present invention.

Sawano discloses a conversion table preserving a 0% density for a particular color data

input and outputting a 0% density for the color data. Sawano, however, does not disclose that the

conversion table is modified according to a constraint condition.

In contrast, the claimed invention establishes a color conversion table such that a first

colorimetric value of colors is equalized to a second colorimetric value of colors, and then,

desired color data is obtained with the second device according to a constraint condition by

modifying the conversion table according to the constraint condition.

Accordingly, Applicant respectfully submits that claims 1-17 should be allowable

because the cited references do not teach or suggest all of the features of the claims.

By this Amendment, Applicant has added new dependent claims 18-20 which recite the

constraint condition is set independently of the output characteristics and printing conditions of

-16-

the first and second devices. Applicant respectfully submits that the cited references do not teach or suggest this feature of the claimed invention.

III.   Conclusion

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

SUGHRUE MION, PLLC
Telephone: (202) 293-7060
Facsimile: (202) 293-7860
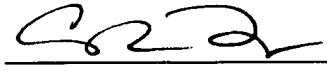
Christopher R. Lipp
Registration No. 41,157

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